Bi-Coastal BEDES Strategic Working Group Meeting
Fifth Meeting Tuesday September 9, 2014 1:00-5:00 EDT (10:00a-2:00p PDT)
Washington D.C.: DOE, Forrestal HQ, Room 6A-112
California: LBNL, Building 90 Room 1144

Convener: Rick Diamond, LBNL
Facilitator: Dr. Jonathan Raab, Raab Associates, Ltd.

Meeting Summary

21 people attended the SWG meeting either in person in DC or at LBNL or by phone (see attendee list in Attachment 1).

1:00   Welcome, Introductions, and Agenda—Rick and Jonathan
Rick welcomed participants and provided an overview of the meeting agenda and goals. The meeting slides are available on the website. Jonathan summarized the SWG's efforts and encouraged participants to provide feedback on the BEDES tool and the draft implementation plan by Friday.

1:05   TWG Meeting Recap and SEED
Rick reviewed the TWG meeting discussion from the previous day (9/8/14) on global terms, HVAC, loads, measures, and the BEDES release format. Rick also summarized BEDES components and its relationship to the SEED Platform. Robin provided a brief overview of SEED use-cases, and as an example. Marshall described DC's efforts with SEED.

1:10   Draft Implementation Plan Recommendations: Review/Feedback
Rick walked through the seven recommendations included in the BEDES implementation plan and invited comments and feedback. These recommendations are based on discussions from past SWG meetings.

1. Leading by Example
Recommendation #1: DOE's Buildings Technology Office should use BEDES compliant tools whenever possible in its portfolio.
- Current BTO tools, including the Building Performance Database (BPD), and the Standard Energy Efficiency Data (SEED) Platform already use BEDES. Elena highlighted plans to make the Home Energy Score the Commercial Asset Score Tool compatible with the BEDES data exchange format over the next year.
- Other federal tools that will be aligned with BEDES include Energy Star's Portfolio Manager. Shankar described FEMP's plans to develop a BEDES compliant format for its eProject Builder. The tool collects information related to energy savings performance contracts.
- Elena identified other areas of interest for BEDES use, including:
  - BTO Residential Home Performance with Energy Star (HPwES) data collection from program partners. The team is also interested in using SEED for managing this data

- o A potential pilot to link Home Energy Score data with real estate listing services
        - o The Weatherization Office's State Energy Program data collection
        - o Better Buildings Challenge data collection
- BEDES started with three use cases to guide its development. The focus has been on benchmarking, program administrative data, and level one audits. The SWG agreed that there will be a process to expand the dictionary to cover additional use cases and address any conflicts of definitions for like terms.

2. Naming and Branding
Recommendation #2a: The name Building Energy Data Exchange Specification "BEDES" be kept for the overall activity, and that individual components be referred to with "BEDES" as a descriptor.
- SWG participants agreed that the BEDES name is good enough for now; a suggestion was made to initially publish the pronunciation along with the name to help the market gain familiarity.
- There was discussion on whether the BEDES name should reflect the version. Several in the group recommended that the team take a closer look at version control and backwards compatibility. There was a sense that shouldn't use BEDES 1.0 unless there would be a 1.1, 1.2 etc. Models to consider include:
    - o HPXML point system release approach
        - – Additions or corrections add a decimal (i.e. version1.0 to 1.1 to 1.2), major format changes include a number upgrade (i.e. version1.0 to 2.0).
    - o EPA Energy Star Portfolio Manager lessons learned on versioning
        - – EPA does not have the same control needs as BEDES. It owns both the schema and the definition and therefore does not have back-up compatibility. Over 100 tools exchange data with Portfolio Manager. When EPA makes update to Portfolio, the changes are scheduled well in advance. EPA works with the web services to make the software compatible before it is released to the public

Recommendation #2b: BEDES branding should include the BEDES logo
- Rick asked participants to look at a possible BEDES logo and write down five words. Some ideas that came to mind include: homes, upload icons, up and down arrows, buildings, progress, rockets, transfer.
- The group decided that a professional graphics designer may be needed to design a BEDES logo. Elena and Rick will revisit and explore options.
    - o One suggestion was to have the SEED and BEDES logos compliment the existing BPD logo.
- A suggestion was made to look at the ANT+ wireless brand guide for other branding and marketing ideas. The ANT+ tool defines similar compatibility and interoperability features as BEDES

Recommendation #2c: BEDES branding should include a tagline.
- Rick presented the following tagline " *BEDES—For faster, easier, and universal building energy data exchange*", and asked participants to recommend a better tagline. Ideas offered by the group include:
    - o "For efficient universal performance data exchange"

- o "Unlocking our energy future"
- o "Industry-recognized universal building energy data exchange"
- o "The dictionary for buildings energy performance exchange"
- o "Building energy data sharing made simple"
- o "Improving energy performance in buildings through universal data exchange"
- o "Consistency through collaboration"
- o "Standardizing the performance of building data"
- There was no attempt to reach agreement on the tag line at the meeting.

3. Piloting and Evaluating
Recommendation #3: Pilot and Evaluate BEDES early adopters
- Rick presented opportunities to work with pilot partners to help develop BEDES, identify user support needs, and long-term goals.
- Some of the potential pilots to engage in FY 2015 include:
  - o *The California Energy Commission. CEC* is interested in a pilot with school data under Proposition 39, and specifying SEED/BEDES, for the reporting of energy data, which will facilitate the analysis and evaluation of the school energy retrofit projects.
  - o Both the *City and County of Los Angeles* are interested in specifying SEED/BEDES for energy disclosure, benchmarking, and other applications such as building permitting. The County of Los Angeles is ready to evaluate SEED/BEDES for their immediate needs. This pilot could be used as the basis to develop audit data reporting formats for all of the cities with audit requirements.
  - o The *Vermont Energy Investment Corporation* (VEIC), the *U.S. Green Building Council* (USGBC), the *City of Berkeley*, and others have expressed interest in piloting SEED/BEDES for their programs.
  - o The District of Columbia is interested in using SEED to connect with the DC Sustainability Utility. Marshall proposed the creation of a schema for reporting audit data that can be used by other cities as another pilot option.

4. Providing User Support
Recommendation #4: Provide User Support
- Rick described the long-term vision for a BEDES foundation, and invited discussion on the short-term needs to develop user support for the implementation and promotion of BEDES. The group identified the following recommendations for the development of user support:
  - o Develop general guidance documents that gives users a better idea of the BEDES structure or a "how to" manuals on compliance, schema development and mapping.
    - LBNL can work with teams that have done mapping on other widely used tools and leverage those existing schemes
  - o Consider the Audit Use Case approach, which offered direct tech support to early adopters and is planning to create a developers manual/guidebook to share with others. The team engaged users through conference calls and webinars during the development phase to collect feedback.

- o Refer to the Home Performance XML team's approach. They developed compliance procedures, implementation guides, and may serve as a resource.
  - o Work with initial pilots that can help formalize mapping capabilities that would allow multiple tools to connect as opposed to one-on-one customization This may or may not be possible
  - o The group decided that further thinking should be done regarding the best way to develop mappings to key existing schemas.
- Participants considered options for user support through compliance. Elena described the difference between two compliance options:
  1. **Mapping Compliance:** a standard relationship of how terms map to BEDES without having a file format that can import or export data. Mapping compliance is required to have exchange compliance.
  2. **Exchange Compliance:** an actual XML or CSV file format that has been mapped to BEDES and allows data exchange. Exchange compliance would also require mapping compliance. The BEDES foundation will approve the format schema, but it would be up to the software owner to ensure that the exchange works.
- In both compliance cases, publishing the schema or file format would be optional, and terms that are outside of the scope of BEDES would be allowable. Version control will become important as new terms get added to BEDES overtime.
- A tagging mechanism could also be applied to be able to determine what terms are in the BEDES scope and which are not.
- Participants provided additional recommendations for compliance:
  - o Once the BEDES foundation deems an exchange format compliant, the schema owner will be responsible for making sure that others are using the schema correctly
  - o There might an opportunity for the BEDES foundation to sponsor testing of a BEDES compliant exchange format to make it easier for others to validate and use
  - o Once you have more than one schema, one can encode formal transformations between the schema, and the foundation can host those and make it easier to maintain in an exchange compliant manner
  - o The working group agreed that the term certification may be problematic

5. Updating and Maintaining
Recommendation #5: Provide scheduled updates to the BEDES dictionary and on-going maintenance
- o SWG agreed that in the long-term the BEDES foundation will manage, review, support and promote BEDES use, but in the short-term, the BEDES implementation team will provide updates, additions, and maintenance.
- o Due to funding constraints, new uses cases will likely not be entertained next year. As a next step, the SWG recommended clear articulation of the boundaries of BEDES and the use cases that will be supported versus those that will not.
- o It was agreed that the maintenance needs will be better defined and understood once BEDES is released.

6. Transitioning BEDES to a new support model

Recommendation #6: Both BEDES and SEED should be moved toward a self-supporting model, managed by a non-profit org

- o The SWG agreed that BEDES should continue to be supported by DOE and managed by the BEDES implementation team until a BEDES foundation entity is established.
- o Some members suggested that a business plan or model be developed to guide a funding strategy prior to the creation of a BEDES foundation entity.
- o A business plan would define the BEDES foundation's value proposition and begin to assess the market for it.
- o Several participants agreed that the foundation would need to trademark the BEDES name and logo to retain legal control and use as a value proposition.
- o A recommendation was made to look the California Commissioning Collaborative as a model. The collaborative has a two tiered structure with a funding board and an advisory board.

7. Industry Standardization

Recommendation #7: Support BEDES becoming an industry standard

- The goal for BEDES is to become the de facto industry standard for building energy data exchange
- THE BEDES SWG explored the issue of whether to pursue the adoption of BEDES as an actual industry standard, e.g. ASHRAE, ANSI-ASTM, or ISO, and determined that it should be postponed to a later time.
- There was agreement that the short-term effort should be to encourage wide use of BEDES before being codified as a formal industry standard
- One suggestion was to look at the ANSI Energy Efficiency standardization road map

4:30 **Next Steps, SWG future engagement, & Wrap-Up (44')**

- The SWG agreed on the following tasks recommended as part f he BEDES implementation plan for FY 2015
  - o Develop BEDES website
  - o Support Partner implementations
  - o Support initial adopters with a focus on 1 to 2 pilots
  - o Provide biannual updates of the BEDES Dictionary 1.0
  - o Initiate the development of a transition strategy for managing BEDES
- Other tasks proposed for next year include:
  - o Trade marking the BEDES name and logo
  - o Identifying next use cases, planned funding for FY 15 does not support new modules
- Several members of the SWG highlighted activities that they are currently planning that could help advance BEDES 1.0?
  - o Mike: CalCERTS is working with the CA Energy Commission (CEC), evaluating files, receiving input file, reading it, and providing output files code compliant for residential simulations
  - o Martha: CEC is working on several related items including, codes and compliance work with DOE and PNNL to get FTD type data model for national ASHRAE analysis and performance; efforts to compare California and the national asset rating approaches for residential and non-residential buildings; planning efforts on proposition 39 data collection; and re-writing the AB 758 action plan on retrofit data needs

- o Marc: The Energy Coalition is working on separate tracks for benchmarking and audits ordinances, technical work for online permitting, and research using BEDES terminology without violating confidentiality agreements to exchange data.
- o Jeff: Sempra Energy is working investors and utilities on energy efficiency pilots that will be rolled out next year. The data collection working group remains interested in BEDES.
- o Elena: DOE is trying to lay the ground work for a future model to be added to BEDES on energy efficiency loan data. A scoping study on energy efficiency loan data was recently published by the SEE Action Network.
- o Wayne: Jones Lang LaSalle is planning to use BEDES natively

5:00 **Adjourn**

Jonathon thanked the SWG for its work over the past year and invited any additional comments on the draft strategy document by Friday, September 12.

Attachment 1: SWG #5 Attendees

<u>Berkeley</u>
Rick Diamond
Robin Mitchell
Marc Costa
Jeff Barnes
Avery Kintner
Jeff Johnson
Tim Duran
Prasad Vaidya
Rob Hitchcock
Mike Bachand
Martha Brook

<u>Washington, D.C.</u>
Elena Alschuler
Marshall Duer-Balkind
Nancy Gonzalez
Alan Chen
Jonathan Raab

<u>Ready talk (phone)</u>
Cindy Jacobs
Daniel Studer
Jean Luppinacci
LG Desantos
Nora Wang
Angela Ferrante
Nora Wong
Wayne Aldridge